

DIRTY AIR IS HARD TO BEAR



Air Quality Division
Michigan Department of
Environmental Quality



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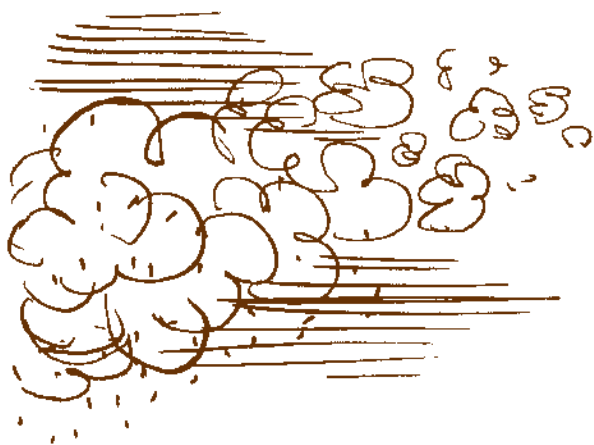
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Michigan had air pollution long before anyone was around to complain about it. Windblown dust, a variety of odors and thick black smoke from forest fires all were here before human lungs, noses, throats and eyes.



Since nobody was around back then to measure air pollution, we can only guess how much animals might have been bothered by dirty air.



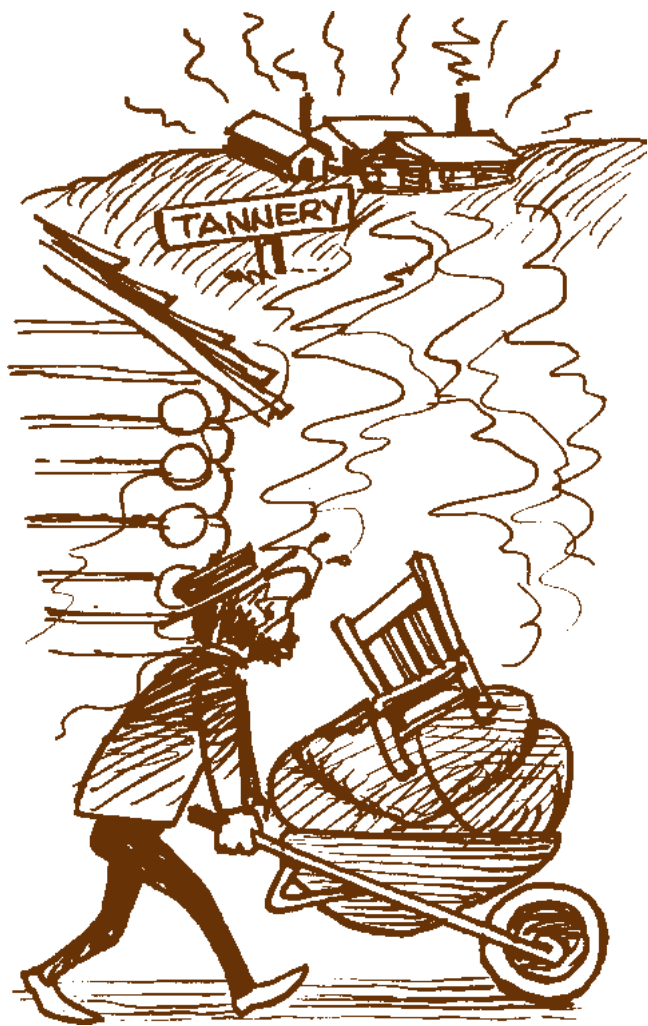
But wild creatures have a natural, logical defense against air pollution. They simply run from it!



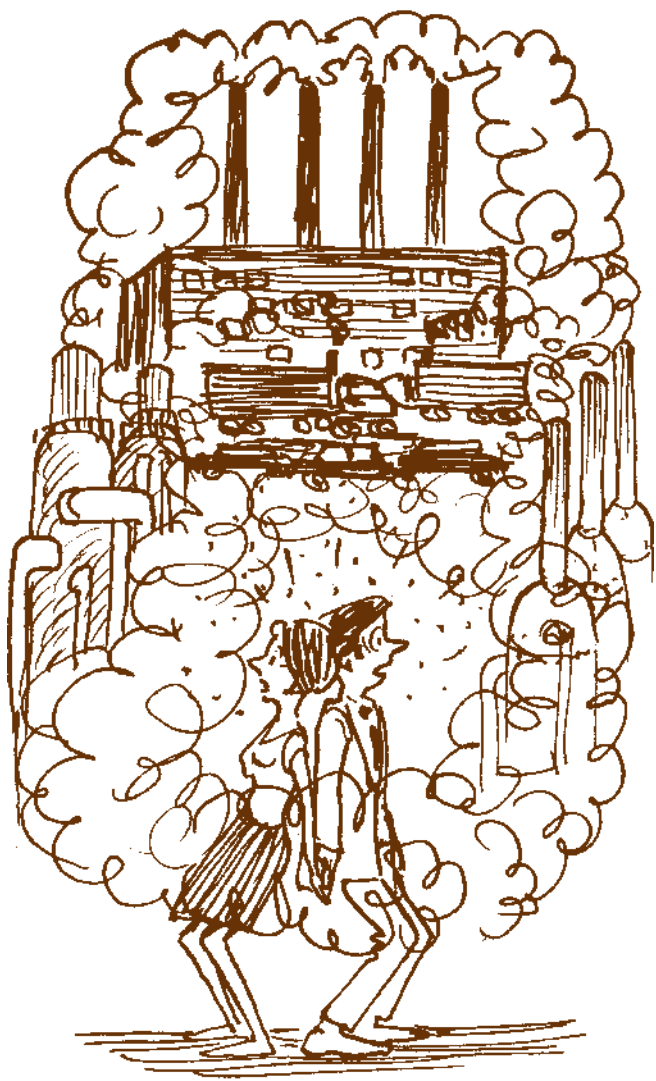
For a time in early Michigan, humans could also escape from foul air. They, too, had plenty of room to get away from it.



Naturally occurring pollutants often announce their presence before they become troublesome. Even those that can't be seen usually can be smelled or sensed in some other way.



So, Michigan's early inhabitants must have learned to identify and cope with the air contaminants of their day. Often, their solution may have been simply moving upwind of the polluter.



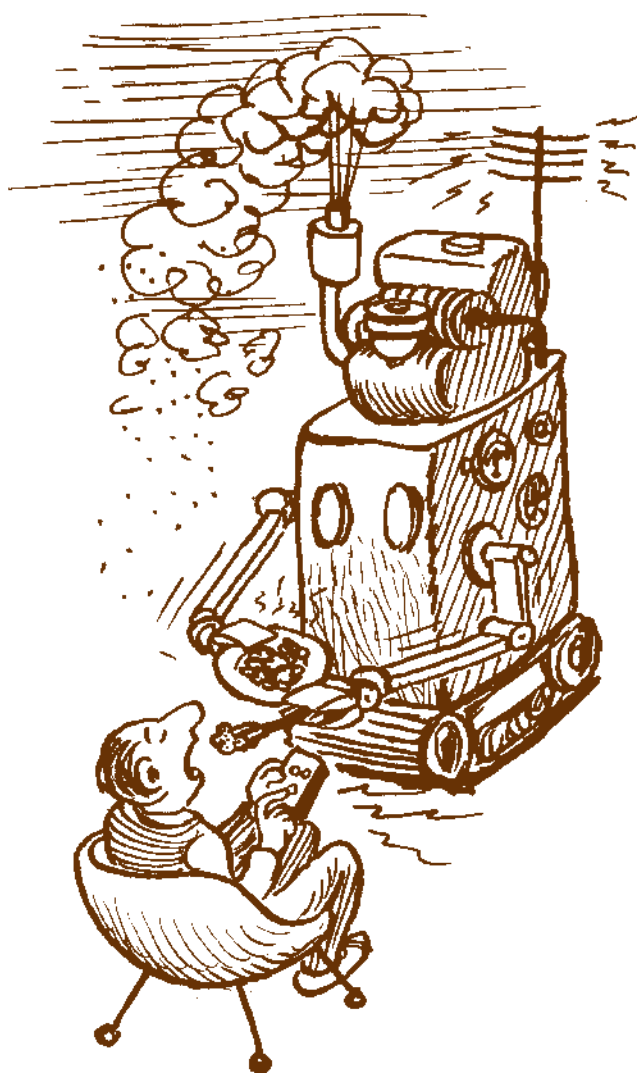
If only today's solutions were that simple.



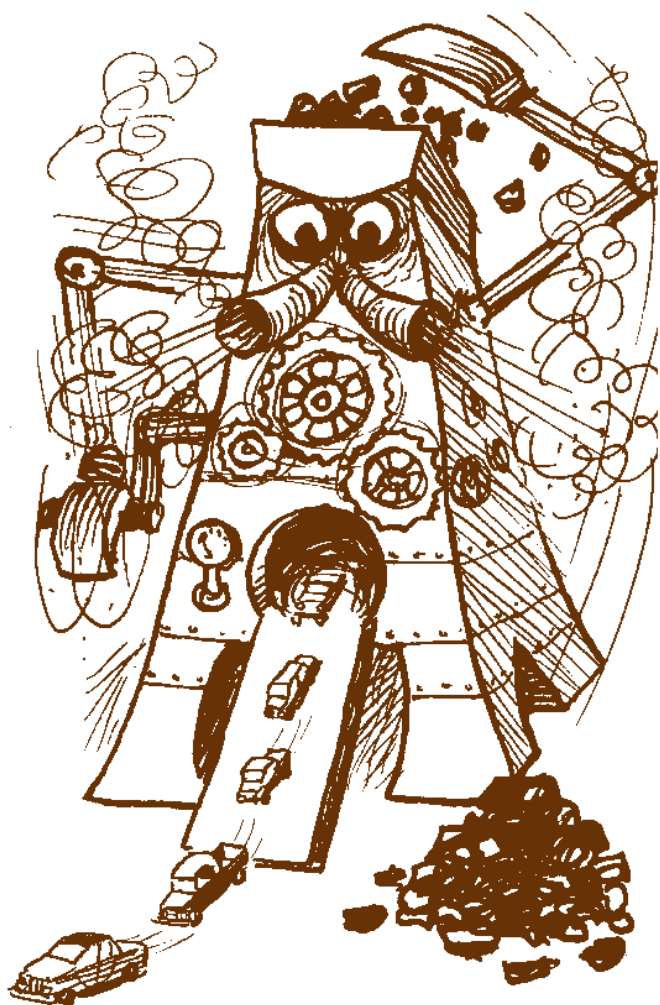
They might be, had not we humans used our superior intelligence in the incidental creation of a number of unnatural pollutants. And to make things worse, some of the most dangerous air pollutants are the ones we can't even sense. It's hard to know when to run away from something if we don't know it's there!



How did this come to be? Humans are, presumably, the most intelligent creatures on earth. Why would we contaminate the air, perhaps our most precious natural resource?



There is no single or simple answer to questions such as these. Air pollution is related to one of our most important inventions — the machine. Which machines? Well, all of them, large and small, are related to the never-ending human drive to make life easier.



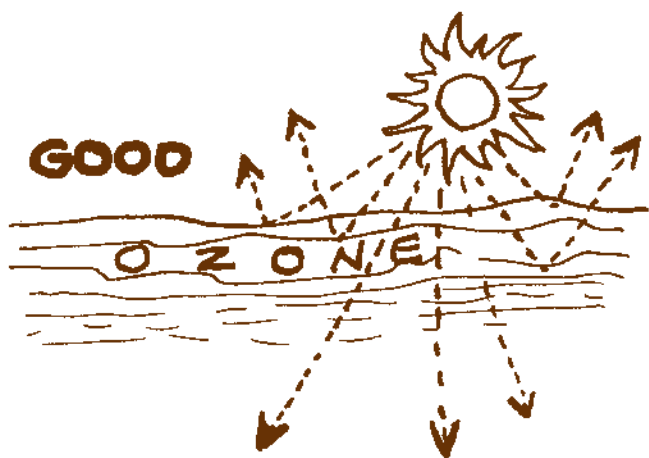
Michigan, a major industrial state, has millions of machines. Huffing, puffing, and churning, machines make cars and trucks, heat and cool our homes, haul ore from mines, and make power to run other machines. And, machines pollute the air.



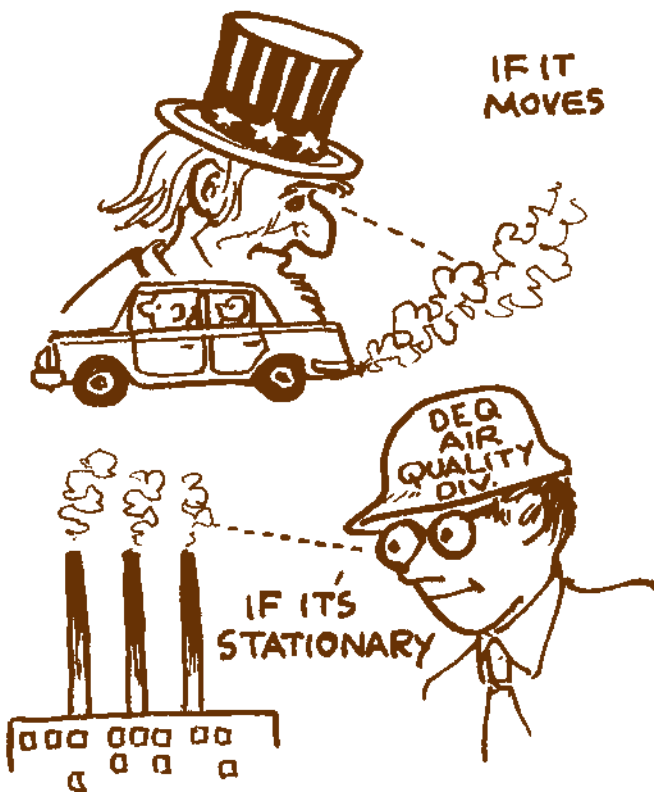
Most air pollution is related to the kinds of fuel we burn in our machines. For example, uncontrolled coal burning can release unhealthy amounts of sulfur dioxide, smoke, and soot into the air. Too much of this stuff makes people sick.



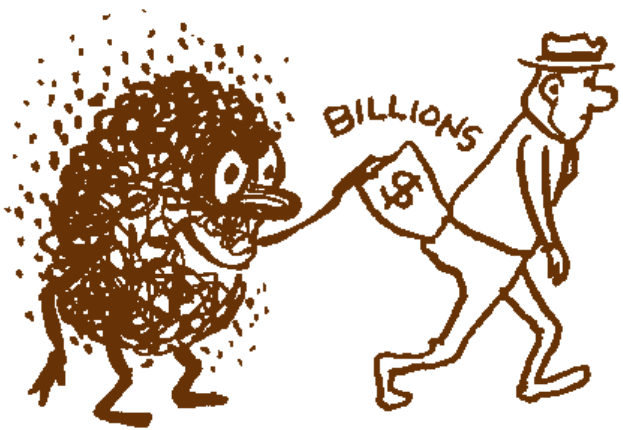
Beyond causing health problems, high particulate and sulfur dioxide levels can damage property and injure or kill crops, flowers and trees. It can even make the air harder to see through.



Other common pollutants — some caused by fuel burning, some by chemical reaction — are carbon monoxide, nitrogen oxides, and ozone. You may have heard of ozone. It's fine in its place, which is high in the stratosphere where it forms a layer that protects us from harmful rays from the sun. But too much ozone in the air we breathe can make us cough, make our eyes water, and cause other problems.



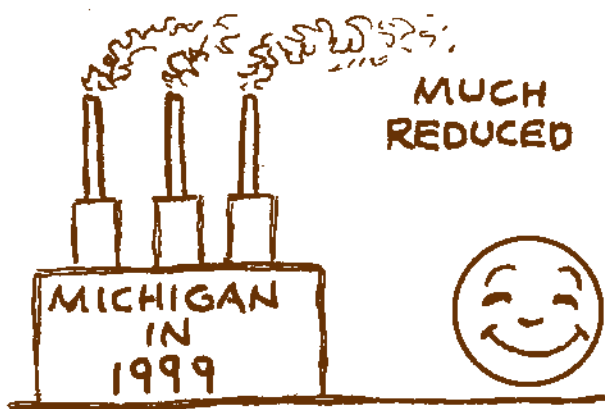
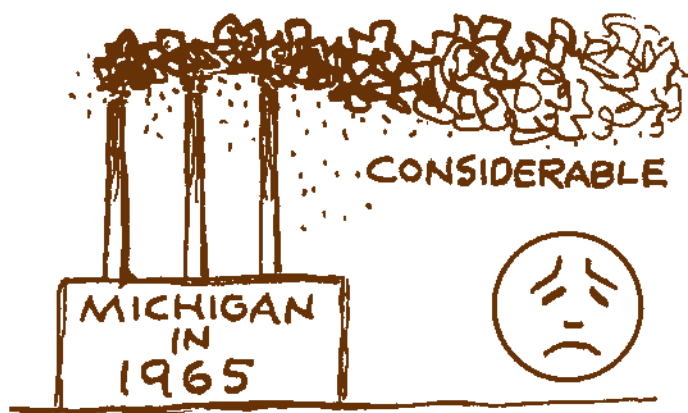
Carbon monoxide deprives our bodies of oxygen. We can't see it, smell it, or taste it, yet small concentrations of it can be deadly if breathed. A major source of carbon monoxide, nitrogen oxides, volatile organic compounds, and contributor to unwelcome ozone is the automobile. Auto emission control, which has come a long way through the years, is essentially the federal government's task. State and local air pollution control agencies concentrate on power plants, incinerators, factories and other sources that don't move around.



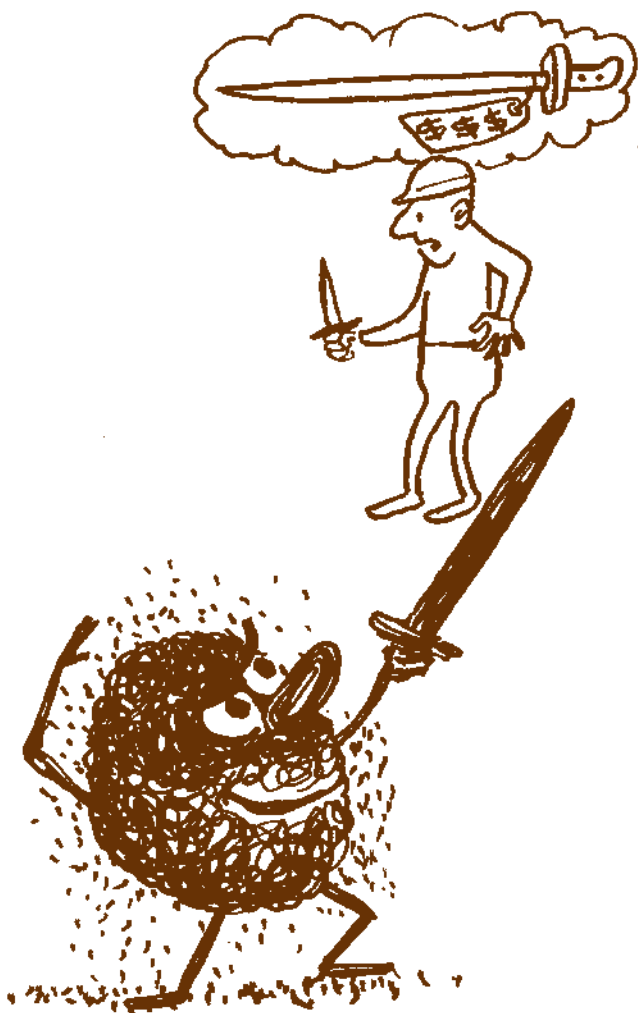
The pollutants we've pointed out thus far add up to not only a major health hazard, but a gigantic drain on everyone's pocketbook. In addition, there is a concern about the many chemicals used by industry or created as industrial byproducts. Those identified so far as dangerous — such as mercury, asbestos and chlorine — are now subject to control, and research continues in this area.



Indeed, Michigan's efforts to control air pollution have made our state a leader in the battle for cleaner air. Michigan was ahead of many other states in recognizing air pollution's dismal potential and doing something to prevent its formation. In 1965, an inspired state legislature passed an act that would thrust the Great Lakes State into the air pollution control arena even before the federal clean air act required all states to combat dirty air. The DEQ Air Quality Division is responsible for working to keep Michigan's air clean.



Much progress has been made since 1965. Michigan residents are exposed to much cleaner air now than they were then...and the clean up has progressed without a lot of "arm-twisting". Most major sources have voluntarily agreed to take specific steps to cut down air pollution. During the last 30 years, the state's industrial source air pollution emissions have been greatly reduced despite tremendous population and industrial growth.



Even with the cooperation of many major sources and the voluntary actions to reduce air pollution by the general public, the air pollution battle has been a tough one. It costs more and more each time we strive to further reduce the emission of air contaminants from industry, from transportation and from other sources. No longer can we simply run someplace else to escape dirty air. Chances are, we'd find it there too.



But, due greatly to the patience and cooperation of citizens bothered by air pollution, reductions from sources contributing to it, and government agencies charged with controlling it, Michigan's air is cleaner today.



The battle for cleaner air is far from won in Michigan or elsewhere. Although we're breathing much less sulfur dioxide and carbon monoxide these days, challenges remain to further reduce pollutants emitted into the air. On top of that, the demand for energy — from all type of fuels — is growing.



We must further reduce levels of ozone ... and of fine particulate matter, microscopic particles that can cause respiratory problems. Air pollution should be less of a problem as new cars replace their polluting ancestors because newer models are designed to run cleaner. But there's been a large increase in the number of vehicles on the road and people are driving farther to get to and from their jobs. More work remains to be done. We also need to learn more about other potentially dangerous toxic air contaminants sometimes found in the air over Michigan. Expanded air monitoring, extensive source sampling and diligent investigation needs to continue.



As a Michigan man put it in 1969:
"The answer is, simply, more work. The quality of the air we breathe and our ability to breathe it imposes on us the responsibility of conserving our air resource. We have no choice left to us. I like the thought that someday, somewhere, our children's children will recognize the late 1960's and 1970's as the years when the despoiling of our environment ceased and a slow but definite turnabout took place. The time to work toward this effort is now." That man was Bernard Bloomfield, first chief of the agency we now call the Department of Environmental Quality, Air Quality Division.



Mr. Bloomfield was right. Air pollution control in Michigan has meant a great deal of work by many people. There's still a lot of work ahead. Air pollution control efforts require the continued understanding and support of the people of Michigan. If you'd like more information about Michigan's air pollution control program, contact:

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